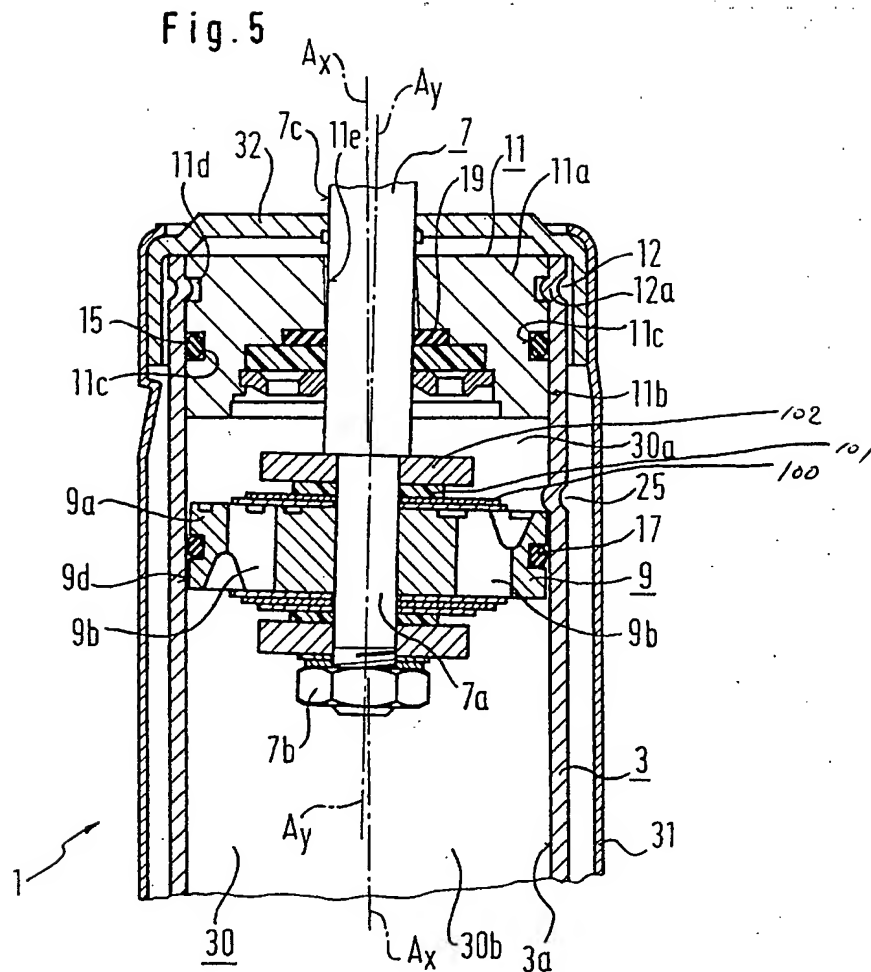


REMARKS

The Office Action dated July 26, 2005 has been carefully considered. Claims 1-5 are pending in the application, with claim 1 being the only independent claim. Claim 1 has been amended to correct a clear typographical error. Entry of this minor amendment to claim 1 is respectfully requested.

Claim 1 was rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,454,455 (Kundmuller) in view of U.S. Patent No. 5,862,893 (Volpel). The Examiner acknowledged (Office Action, pages 2 and 3) that Kundmuller fails to teach a stop disk that has an outer diameter greater than that of an adjacent piston 9, but reasoned (Office Action, page 3) that since Volpel teaches a disk 142 that has an outer diameter greater than that of an adjacent piston 144, it would have been obvious to one of ordinary skill in the art to have modified Kundmuller with the stop disk 142 of Volpel. As explained in detail below, applicants respectfully traverse because (1) modifying Kundmuller in the way proposed in the Office Action would render Kundmuller inoperative; and (2) even assuming that Kundmuller and Volpel could be combined in the way proposed in the Office Action, the applied references fail to disclose or suggest all of the limitations of claim 1.

Reproduced below is Fig. 5 of Kundmuller. Reference numerals 100, 101 and 102 have been added to aid in the following discussion.



First of all, the disk of Kundmuller the Examiner referred to in the Office Action is not a "stop disk" at all. Rather, it is a stiff support disk. As illustrated in the above Fig. 5, the piston 9 in Kundmuller has axial bores 9b, which are partially covered by valve disks 100. The valve disks 100 are biased toward a predetermined throttling position, which may be different for different directions of flow of the damping medium through the axial bores 9b. See Col. 5, lines 29-32 and 60-65; Fig. 5. More specifically, in the direction facing the working space 30a, the piston 9 has two valve disks 100 that partially cover the axially directed bores 9b. A smaller stiff distance disk 101 is mounted on top of the two valve disks 100. A stiff support disk 102 is then mounted on top of the still distance disk 101. The stiff support disk 102 minimizes deformation of the valve disks 100 and

biases the valve disks toward a predetermined throttling position. Thus, the stiff support disk 102 in Kundmuller is not a stop disk at all.

In addition, the stiff support disk 102 in Kundmuller cannot be modified as a stop disk, as proposed in the Office Action, because doing so would render Kundmuller inoperative. As discussed earlier, the primary function of the stiff support disk 102 in Kundmuller is to minimize the deformation of the valve disks 100 and to bias the valve disks toward a predetermined throttling position. If the stiff support disk 102 is replaced by the disk 142 of Volpel, then when the stiff support disk comes to rest against the projection 25 of the cylinder 3, it would apply a tilting force on the valve disks 100 and would destroy the predetermined throttling position of the valve disks. Thus, Kundmuller teaches away using of the stiff support disk as a stop disk.

Moreover, the disk 142 of Volpel cannot be viewed as a stop disk mounted on the piston rod adjacent to the piston and having an outer diameter greater than that of the piston. Rather, the disk 142 is mounted directly on the piston 144, and should be viewed as part of the piston 144. Fig. 4 of Volpel discloses a valve system 140, which employs the piston 144, the disk 142, which is mounted directly on the piston 144, and a part 107. See Fig. 4.

A sealing element 143 is normally in a sealing position between the disk 142 and the part 107, but it can be moved between the disk 142 and the part 107 by pressure in working space 104 or 105. More specifically, if the pressure in the working space 104 is high enough, it can push the sealing element 143 and the part 107 to move against the force of a spring 145. Once the sealing element 143 is pushed away from its normal sealing position, the damping medium in the working space 104 can flow into the working space 105 via a space 144a between the piston 144 and the part 107 and a hole 114 in the part 107. Col. 6, lines 3-12; Fig. 4. On the other hand, if the pressure in the working space 105 is high enough, it will push the sealing element 143 away

from its normal sealing position, away from the part 107 and against the disk 142, to allow the damping medium in the working space 105 to flow into the working space 104 via a space 116 between the cylinder 101 and the part 107 and a passage 150 in the disk 142. Col. 6, lines 44-51; Fig. 4. Removing the disk 142 away from the piston 144 would render the valve system 140 inoperable. Thus, the disk 142 of Volpel is part of the piston 144, and cannot be viewed as a stop disk mounted on the piston rod adjacent to the piston and having an outer diameter greater than that of the piston, as recited in claim 1. In view of this and the fact that the stiff support disk 102 of Kundmuller is not a stop disk at all, the references, even assuming they could be combined in the way proposed in the Office Action, fail to teach or suggest the invention recited in claim 1 comprising a stop disk that is mounted on the piston rod adjacent to the piston and has an outer diameter greater than that of the piston.

In view of the foregoing, withdrawal of the §103(a) rejection of claim 1 is respectfully requested.

Dependent claims 2-5 are patentable for at least the same reasons that independent claim 1 is patentable, as well as for the additional limitations recited therein.

Applicants respectfully submit that the amendment to claim 1 does not raise any new issues that would require further consideration and/or search by the Examiner.

Applicants respectfully request entry of this Amendment and submit that the application is in condition for allowance, and such action is respectfully requested.

It is believed that no fees or charges are required at this time in connection with the application; however, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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